

PIXE analysis of trace elements in otoliths of the alfonsino, *Beryx splendens*, in waters of Japan

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Abstract

This study suggests the behavior ecological study as migration of alfonsino, *Beryx splendens*, by analysis of trace elements in otolith of alfonsino by PIXE method. 21 Elements were detected in otoliths of alfonsino, 4 Elements were detected from all sample. There were positive correlation between the concentration of Si in otolith and the body length in waters of Hachijojima. This result suggests that habitat areas of alfonsino has moved into deeper waters as alfonsino ages. Sr/Ca ratios of otoliths were not difference between Hachijo area and Okinotorishima. This result suggests that alfonsino have inhabited similar environments of salinity in waters of Hachijojima and Okinotorishima.